

MD 450 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

PROPOSED LED SIGNALS

1,2,3,4,5,6,7,8

9,10,11,12
13,14,15,16

(R)
(Y)
(G)
12"



PROPOSED VIDEO DETECTION

a,b,c,d



PROPOSED SIGNS

17,23
TO NORTH
201
M4-5 (24"x12")
M3-1 (24"x12")
M1-5 (30"x24")
M6-1 (21"x15")

19,21,24,26
48th ST
D-3(1) (VAR.X16") (DUAL FACED)
43,44
ONLY
R3-5L (30"x36")

29,33,37,41
Annapolis RD
D-3(1) (VAR.X16") (DUAL FACED)

30
EAST
450
M1-5(6) (30"x48")

31
WEST
450
M1-5(6) (48"x72")

38
WEST
450
M1-5(6) (30"x48")

39
EAST
450
M1-5(6) (48"x72")

LINE HEIGHTS (LH) 1
COMMUNICATION 1 - 19'-9"
COMMUNICATION 2 - 22'-0"
SPAN WIRE - 22'-6"
COMMUNICATION 3 - 23'-9"
GUY WIRE - 31'-10"
PRIMARY - 35'+

LINE HEIGHTS (LH) 2
COMMUNICATION 1 - 24'-0"
GUY WIRE 1 - 25'-0"
GUY WIRE 2 - 30'+
SECONDARY - 35'+

LINE HEIGHTS (LH) 3
SERVICE DROP - 25'-0"

LINE HEIGHTS (LH) 4
GUY WIRE - 30'+

CONSTRUCTION DETAILS

- INSTALL NEMA SIZE "6" BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT (NOTE: 2-2 IN. AND 2-4 IN. 90 DEGREE BENDS).
- INSTALL 16.5 FT. STEEL POLE WITH A 15 FT. "T" DIMENSION, 50 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA AND LED COUNTDOWN PEDESTRIAN SIGNAL HEAD. (NOTE: 1-3 IN. PVC 90 DEGREE BENDS).
- INSTALL 27 FT. STEEL POLE WITH A 50 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA AND 20 FT. LIGHTING ARM WITH 250 WATT HPS LUMINAIRE (NOTE: 1-3 IN. PVC 90 DEGREE BEND).
- INSTALL 21 FT. STEEL POLE WITH A 38 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND SIGN R10-3(1) "PUSH BUTTON TO CROSS 48TH STREET" (NOTE: 1-3 IN. PVC 90 DEGREE BEND).
- INSTALL 10 FT. BREAKAWAY PEDESTAL POLE WITH SPECIAL FOUNDATION SHA STD. MD 801.01-01, BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND SIGN R10-3(1) "PUSH BUTTON TO CROSS ANNAPOLIS ROAD OR 48TH STREET" (NOTE: 1-3 IN. PVC 90 DEGREE BEND).
- INSTALL 5 FT. BREAKAWAY PEDESTAL POLE WITH SPECIAL FOUNDATION SHA STD. MD 801.01-01, BREAKAWAY COUPLINGS, ACCESSIBLE PEDESTRIAN PUSHBUTTON AND SIGN R10-3(1) "PUSH BUTTON TO CROSS 48TH STREET" (NOTE: 1-3 IN. PVC 90 DEGREE BEND).
- INSTALL ELECTRICAL HANDHOLE.
- INSTALL METERED SERVICE PEDESTAL (NOTE: 3-2 IN. AND 1-4 IN. PVC 90 DEGREE BENDS WITH 3/4 IN. CONDUIT FOR GROUND WIRE).
- INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED) - FOR PROPOSED UNDERGROUND POWER SERVICE, CAP AND MARK CONDUIT, AND LEAVE A 1 FT. STUB AT UTILITY POLE FOR USE BY OTHERS.
- INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED) - FOR PROPOSED UNDERGROUND TELEPHONE SERVICE, CAP AND MARK CONDUIT, AND LEAVE A 1 FT. STUB WITH PULL STRING AT UTILITY POLE FOR USE BY OTHERS.
- INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (SLOTTED).
- INSTALL GROUND MOUNTED SIGN ON TWO 4 IN. X 6 IN. WOOD POSTS.
- INSTALL 12 IN. HEAT APPLIED WHITE PERMANENT THERMOPLASTIC PAVEMENT MARKINGS FOR CROSSWALK.
- REMOVE EXISTING PAVEMENT MARKINGS AND INSTALL 24 IN. HEAT APPLIED WHITE PERMANENT THERMOPLASTIC PAVEMENT MARKINGS FOR STOPELINE.
- REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT SHA STD. MD 655.12 SIDEWALK RAMP WITH DETECTABLE WARNING SURFACE SHA STD. MD 655.40. (SEE DETAIL THIS SHEET) (SEE NOTE 22)
- REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT, REMOVE FOUNDATION 12 IN. BELOW GRADE AND FILL WITH SELECT BACKFILL, CAP AND ABANDON ANY EXISTING CONDUIT.
- REMOVE EXISTING HANDHOLE AND FILL WITH SELECT BACKFILL, CAP AND ABANDON ANY EXISTING CONDUIT.
- REMOVE EXISTING GROUND MOUNTED SIGN AND INSTALL A NEW GROUND MOUNTED SIGN ON ONE 4 IN. X 4 IN. POST.
- REMOVE EXISTING GROUND MOUNTED SIGN AND POST.
- INSTALL 70 FT. OF 5 IN. HEAT APPLIED WHITE PERMANENT THERMOPLASTIC PAVEMENT MARKING.
- Y. ABANDON EXISTING LOOP DETECTOR.
- Z. INSTALL 21 FT. STEEL POLE WITH A 38 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD (NOTE: 1-3 IN. PVC 90 DEGREE BEND).

UTILITY LEGEND

E — E — ELECTRIC CABLES
A — A — AERIAL CABLES
T — T — TELEPHONE CABLES
F — F — FIBER-OPTIC
SD — SD — STORM DRAIN
G — G — GAS MAIN
W — W — WATER MAIN
S — S — SEWER MAIN

GEOMETRIC LEGEND

EXISTING
PROPOSED
EXISTING CONC. S/W TO BE REMOVED

PROPOSED ACCESSIBLE PUSHBUTTON AND SIGN

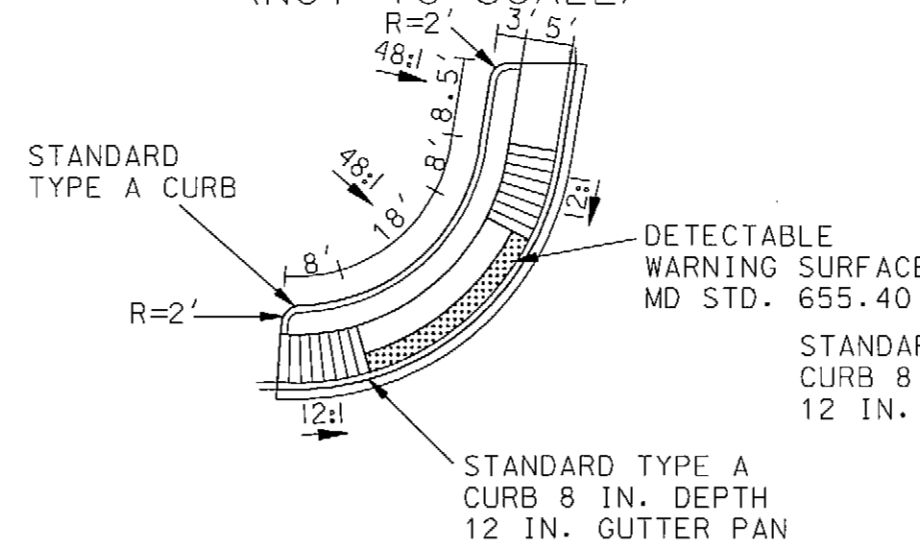
20,25
PUSH BUTTON TO CROSS ANNAPOLIS ROAD
R10-3(1) 9"x15"

22,27
PUSH BUTTON TO CROSS 48TH STREET
R10-3(1) 9"x15"

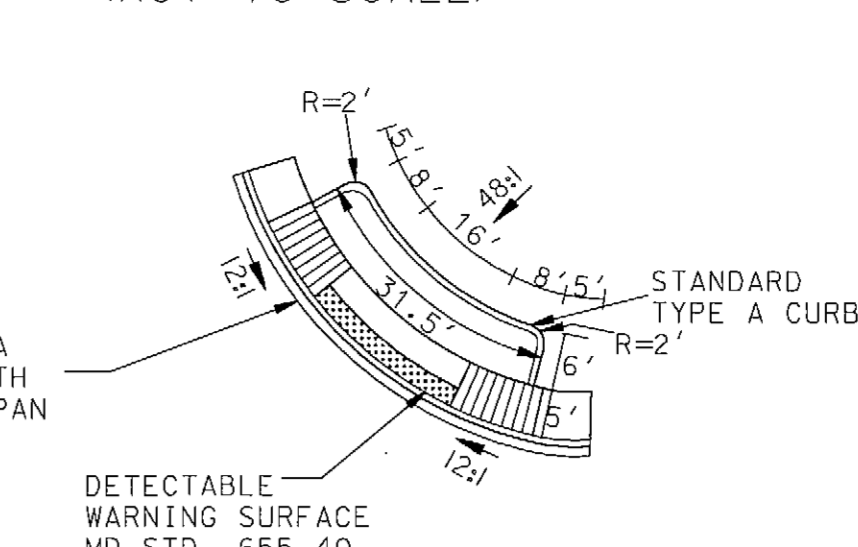
32,40
PUSH BUTTON TO CROSS 48TH STREET
R10-3(1) 9"x15"

34,42
PUSH BUTTON TO CROSS 48TH STREET
R10-3(1) 9"x15"

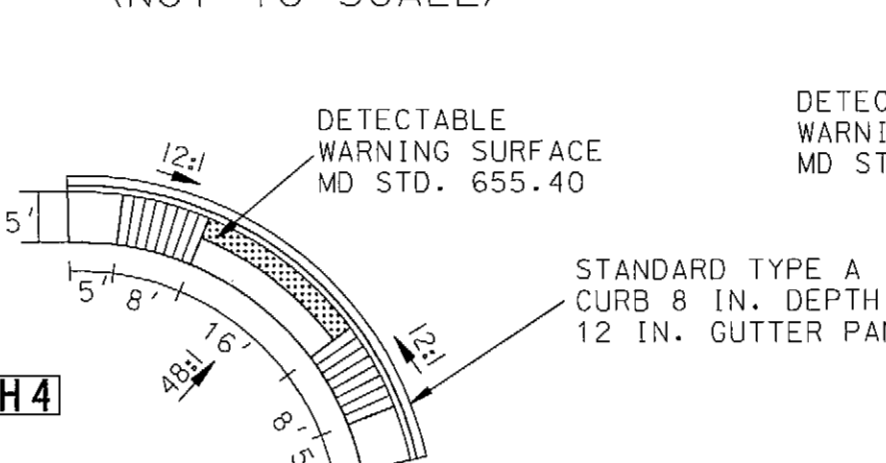
NW SIDEWALK RAMP DETAIL (NOT TO SCALE)



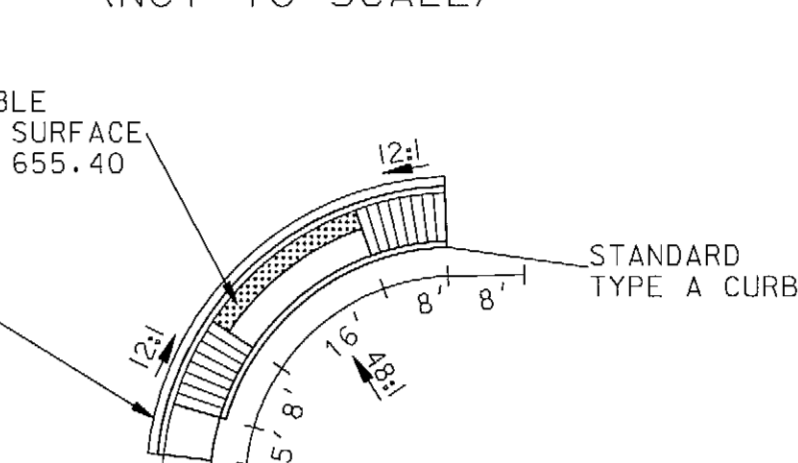
NE SIDEWALK RAMP DETAIL (NOT TO SCALE)



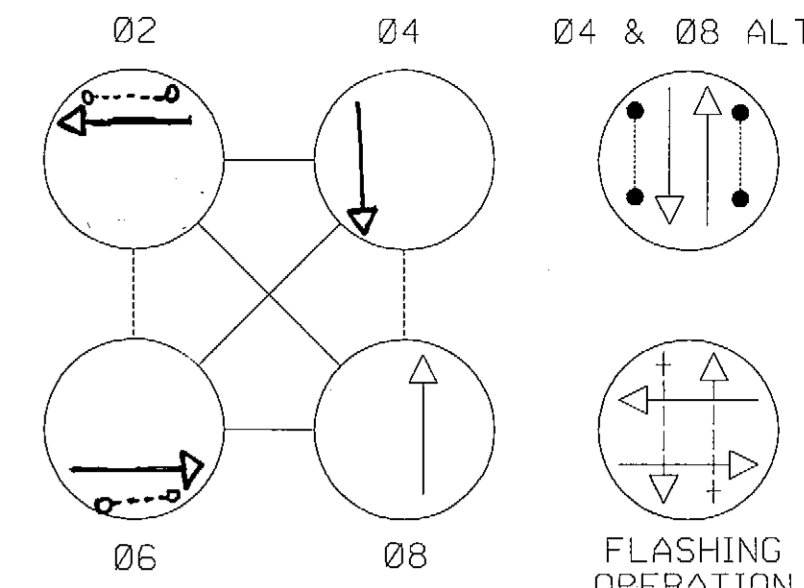
SW SIDEWALK RAMP DETAIL (NOT TO SCALE)



SE SIDEWALK RAMP DETAIL (NOT TO SCALE)

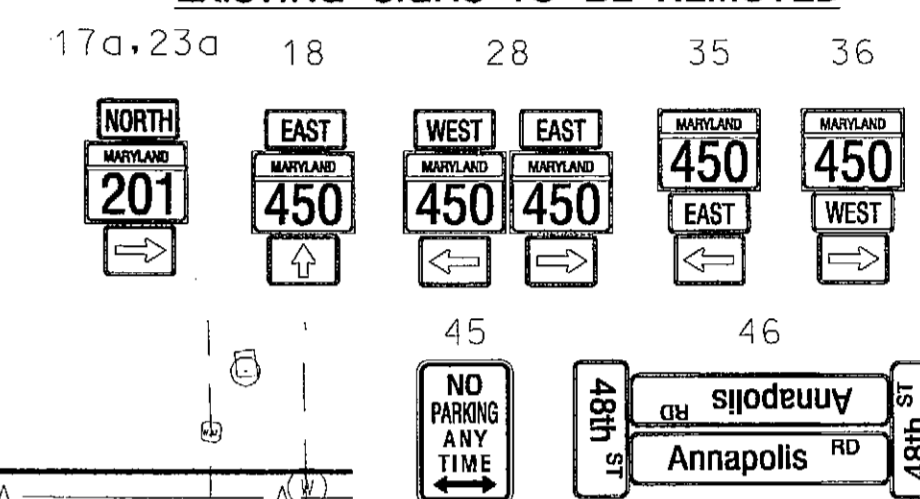


NEMA PHASING



NOTE: PHASES ASSOCIATED BY A DASHED LINE WILL/MAY OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

EXISTING SIGNS TO BE REMOVED



GENERAL NOTES

- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD TYPICALS FOR TRAFFIC CONTROL.
- THE CONTRACTOR SHALL CONTACT MISS UTILITY TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE INSTALLATION OF PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
- WITHIN 36 IN. OF UNDERGROUND UTILITY LOCATIONS, THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE FOR FOUNDATION AND CONDUIT BY HAND.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- THE SHA SIGNAL SHOP WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING AND PROPERLY LABELING ALL SIGNAL CABLES.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED ELECTRICAL CABLES.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATION.
- THE CONTRACTOR SHALL VERIFY THE PROPOSED POLE AND CABINET LOCATION(S) PRIOR TO INSTALLATION.
- SEE GENERAL INFORMATION SHEET FOR PROPOSED TRAFFIC SIGNAL EQUIPMENT AND PAVEMENT MARKING LAYOUTS.
- THE CONTRACTOR SHALL CENTER THE PROPOSED CROSSWALKS ON THE NEWLY CONSTRUCTED RAMPS.
- ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
- VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.2; AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA DOES NOT HAVE TO REACH MORE THAN 18 IN.
- THE 10 FT. SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER OF POLE TO CENTER OF POLE.
- ALL ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7650 TO COORDINATE.
- ALL TRAFFIC SIGNAL EQUIPMENT INCLUDING CONDUIT SHALL BE CONSTRUCTED PRIOR TO SIDEWALK INSTALLATION.
- THE CONTRACTOR SHALL REMOVE AND REPLACE CONCRETE SIDEWALK AT THE NEAREST JOINT.
- THE CONTRACTOR SHALL ENSURE THE EXISTING TRAFFIC SIGNAL REMAINS OPERATIONAL UNTIL RECONSTRUCTED TRAFFIC SIGNAL IS OPERATIONAL.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60 IN. X 60 IN. LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.

- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- PLACE 24 IN. WIDE DETECTABLE WARNING SURFACE ALONG THE FULLY DEPRESSED PORTION OF THE PROPOSED AND EXISTING RAMPS. THE MAT SHALL NOT EXTEND ONTO THE SIDE FLARES.
- VIDEO DETECTION CAMERAS "C" AND "D" SHALL BE ALIGNED FOR BOTH PRESENCE AND SET BACK DETECTION.
- ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.

APPROVALS	REVISIONS
TEAM LEADER	
ASST. DIV. CHIEF	
DIVISION CHIEF	
OFFICE DIRECTOR	

B) FULL SIGNAL RECONSTRUCTION SHA #XX3515168 STV MCG (JW) 1/20/20 A 6-7-00 ASBUILT FOR RED LIGHT CAMERA INSTALLATION R.R.Z.	
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 450 (ANNAPOLIS ROAD) AT MD 789C (48TH STREET) BLADENSBURG, MD	
SIGNALIZATION PLAN SHEET	
SCALE 1"=20' ADVERTISED DATE CONTRACT NO.	
DESIGNED BY	COUNTY PRINCE GEORGE'S
DRAWN BY T.MANK	LOGMILE 16045000.33
CHECKED BY	TIMS NO. K037
F.A.P. NO. T-8006(23)	TOD NO.
TS NO. 543B	DRAWING SG-01 OF 02 SHEET NO. 01 OF 02

STV
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BY: guilamc

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FILE: I:\PROJECTS\401455\401455_0027\Drawings\TRA\48th Street\SG-P001_MD450.dgn